Reply

A. Şahap Kükner G. Alagöz

Department of Ophthalmology, Izzet Baysal Medical Faculty, Golkoy, Turkey

We thank Drs Goodfellow and Caesar for their interest in our article and their comments. In the case they report, the pellet is about half way from the globe to the entrance of the optic canal. If we take their figure 2b and superimpose a black line on it to compare the left and right orbita levels (fig. 1) it can be clearly seen that the pellet is far away from the apex and has not approached the entrance of the optic canal. Thus, the optic nerve was preserved. This is most possibly related to the velocity (mainly momentum) of the pellet; it was not fast enough to reach the canal. This makes us satisfied that vision was still intact in their case situation. The situations of the cases reported in our study were different from this.

Case 1. There was double perforation in the globe and the pellet lodged within the optic canal. There was afferent pupillary defect.

Case 2. There was double perforation in both eyes. Multiple pellets at both orbital apices and optic canals were observed. Bilaterally the pupillary reflex was absent.

Case 3. In this case, the globe was anatomically intact. A larger pellet than in the previous cases was at the optic apex. In the examination, there was optic atrophy and a macular scar. Optic atrophy shows that the pellet at the apex damaged the optic nerve. There was afferent pupillary defect.

Case 4. In this case, the globe was also anatomically intact. Only one pellet was in the right optic canal. The vision was P(–). There was afferent pupillary defect.

As we stated in our paper, the foreign body should be surgically removed if it is organic and also if it is inorganic in case it has resulted in complications. Anteriorly located foreign bodies should be discussed with the patient and can be removed or left in situ unless complicated. Posteriorly located, uncomplicated inorganic foreign bodies should be left in situ. We generally adhered to this protocol with our patients. There were double perforations in 3 of the 5 eyes studied and all were injured by metallic foreign bodies. All patients were immunized against tetanus, and wide-spectrum antimicrobial treatment was initiated. The necessity of operating on one of the patients in the study (case 4) was subject to argument. A neurosurgeon was consulted since the eye was intact. The indication for operation was established by the neurosurgeon, who hoped that optic nerve decompression would be beneficial, for a pellet was observed in the optic canal on CT images. However, there was no improvement in visual acuity despite decompression. We observed some features that were common among these cases. There was double perforation in 3 of the 5 injuries and, to make matters worse, one or more pellets were lodged within the optic canal, causing severe damage to the optic

nerve. The main reason why the severe vision loss was unresponsive to treatment was the optic nerve damage.

Drs Goodfellow and Caesar suggest that a non-organic foreign body located posteriorly in the orbit should be left in place if the patient is asymptomatic. We agree with them on this point.

Fig. 1. The CT scan from Goodfellow and Caesar's figure 2b showing the pellet lodged intraconally adjacent to the optic nerve. The black line indicates the levels of the left and right orbita. Comparison of the two shows that the pellet has not entered the optic canal.